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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference		<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/BR 2002/000136	International filing date (day/month/year) 30 September 2002 (30.09.2002)	Priority Date (day/month/year) 30 July 2002 (30.07.2002)	
International Patent Classification (IPC) or national classification and IPC IPC <sup>7</sup> : F16L 9/147, 9/153			
Applicant COPPE/UFRJ - Coordenacao dos Programas de Pós Graduacao de Engenharia da Universidade			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examination Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p> <p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I. <input checked="" type="checkbox"/> Basis of the opinion</li> <li>II. <input type="checkbox"/> Priority</li> <li>III. <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV. <input type="checkbox"/> Lack of unity of invention</li> <li>V. <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI. <input type="checkbox"/> Certain documents cited</li> <li>VII. <input type="checkbox"/> Certain defects in the international application</li> <li>VIII. <input checked="" type="checkbox"/> Certain observations on the international application</li> </ul>			
Date of submission of the demand 29.01.2004		Date of completion of this report 27 October 2004 (27.10.2004)	
Name and mailing address of the IPEA/AT Austrian Patent Office Dresdner Straße 87 A-1200 Vienna Facsimile No. 1/53424/200		Authorized officer WAGNER S. Telephone No. 1/53424/381	

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/BR 2002/000136

## I. Basis of the report

1. With regard to the elements of the international application:\*

☒ the international application as originally filed

☐ the description:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

☐ the claims:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, as amended (together with any statement) under Article 19

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

☐ the drawings:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

☐ the sequence listing part of the description:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

☐ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in printed form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_.

☐ the claims, Nos. \_\_\_\_\_.

☐ the drawings, sheets/fig \_\_\_\_\_.

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as „originally filed“ and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

**III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☐ claims Nos.

because:

☐ the said international application, or the said claims Nos.  
require an international preliminary examination (*specify*):

relate to the following subject matter which does not

☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 6 are so unclear that no meaningful opinion could be formed (*specify*):

The subjects of Claim 6 (mechanical strength, thermal insulation) are not patentable, because they are only tasks or effect specifications.

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for said claims Nos.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

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## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement			
Novelty (N)	Claims	1-5	YES
	Claims	----	NO
Inventive step (IS)	Claims	1-5	YES
	Claims	----	NO
Industrial applicability (IA)	Claims	1-5	YES
	Claims	----	NO

### Citations and explanations (Rule 70.7)

The following documents have been cited in the Search Report:

D1: US 5755265 A

D2: WO 96/02785 A1

The documents cited in the search report merely describe the state of the art and are not considered of particular relevance concerning novelty and inventive step of the subject-matter of the present application.

They do not refer to a pipeline comprising a composite system with three superposed layers wherein one internal and external layer are made of metallic alloys and one intermediate layer made of composite materials with low thermal conductivity, high mechanical strength and good adherence with the internal and external pipes.

Therefore the subject matters of claim 1 are considered to be new and inventive.

The features of claims 2 to 5 (carbon steel, cement, polypropylene, warmed hydrocarbons) are also not shown by said documents and are therefore considered to be new and inventive.

Industrial applicability is given with respect to claims 1-5.

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## VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

It should be noticed, that the notation "cement" in connection with thermal insulation and high compressive strength is wrong. The right notation is "concrete".